

Appln. No. 10/764,362  
Amendment dated July 11, 2006  
Reply to Office Action mailed January 17, 2006

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims (deleted text being struck through and added text being underlined):

1. (Currently Amended) A ladder structure for enhancing corrosion resistance, comprising:  
a ladder including a pair of rails and a plurality of rungs extending between and mounted on the rails;  
wherein at least one of the rails and at least one of the rungs of the ladder comprise substantially tubular elements each having an interior;  
wherein a pair of the substantially tubular elements of the ladder are connected to each other and the interiors of the connected pair of substantially tubular elements are in fluid communication with each other;  
wherein the at least one rung has an end connected to the at least one rail at a connection, the end of the at least one rung being located outside of the interior of the at least one rail at the connection.
2. (Original) The ladder structure of claim 1 wherein a first one of the connected pair of substantially tubular elements has a perimeter wall with a hole formed therein, and wherein a second one of the connected pair of substantially tubular elements has an opening located at an opposite end of the second substantially tubular element.
3. (Original) The ladder structure of claim 2 wherein the first substantially tubular element is connected to the second substantially tubular element in a manner such that the hole formed in the perimeter wall of the first substantially tubular element is in fluid communication with the opening in the end of the second substantially tubular element.

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4. (Original) The ladder structure of claim 1 wherein both of the rails and substantially all of the plurality of rungs comprise substantially tubular elements with interiors, and wherein the interiors of substantially all of the rungs are in fluid communication with both of the rails.

5. (Original) The ladder structure of claim 1 additionally comprising a support structure mounted on the ladder for enhancing rigidity of the ladder when the ladder is supported at an end in an extended condition.

6. (Original) The ladder structure of claim 5 wherein the support structure including at least one substantially tubular element with an interior in fluid communication with at least one of the substantially tubular elements of the ladder.

7. (Original) The ladder structure of claim 5 wherein the support structure includes at least one truss assembly.

8. (Original) The ladder structure of claim 5 wherein the support structure includes at least one longitudinal member extending substantially parallel to one of the rails of the ladder, and a plurality of cross members extending between the longitudinal member and the said one rail of the ladder, wherein the longitudinal member and substantially all of the plurality of cross members comprise substantially tubular elements with interiors, wherein the interiors of substantially all of the cross members are in fluid communication with the interior of the longitudinal member.

9. (Original) The ladder structure of claim 8 wherein each of the cross members has a pair of opposite ends, a first one of the opposite ends being mounted on the longitudinal member and a second one of the opposite ends being mounted on the rail, at least one of the ends of the cross member being in fluid communication with the longitudinal member.

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10. (Original) The ladder structure of claim 1 wherein at least one of the rungs is mounted to the rails by welding.

11. (Original) The ladder structure of claim 1 wherein the ladder includes a plurality of buttresses, each of the buttresses extending between one of the rails and a medial region of one of the rungs.

12. (Original) The ladder structure of claim 11 wherein each of the buttresses is tubular.

13. (Currently Amended) The ladder structure of claim 1 wherein a first one of the connected pair of substantially tubular elements has a perimeter wall with a hole formed therein, and wherein a second one of the connected pair of substantially tubular elements has an opening located at an opposite end of the second substantially tubular element;

wherein the first substantially tubular element is connected to the second substantially tubular element in a manner such that the hole formed in the perimeter wall of the first substantially tubular element is in fluid communication with the opening in the end of the second substantially tubular element;

wherein both of the rails and substantially all of the plurality of rungs comprise substantially tubular elements with interiors, and wherein the interiors of substantially all of the rungs are in fluid communication with both of the rails;

a support structure mounted on the ladder for enhancing rigidity of the ladder when the ladder is supported at an end in an extended condition;

wherein the support structure including at least one substantially tubular element with an interior in fluid communication with at least one of the substantially tubular elements of the ladder;

wherein the support structure includes at least one truss assembly;

wherein the support structure includes at least one longitudinal member extending substantially parallel to one of the rails of the ladder,

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and a plurality of cross members extending between the longitudinal member and the said one rail of the ladder, wherein the longitudinal member and substantially all of the plurality of cross members comprise substantially tubular elements with interiors, wherein the interiors of substantially all of the cross members are in fluid communication with the interior of the longitudinal member;

wherein each of the cross members has a pair of opposite ends, a first one of the opposite ends being mounted on the longitudinal member and a second one of the opposite ends being mounted on the rail, at least one of the ends of the cross member being in fluid communication with the longitudinal member;

~~wherein at least one of the rungs is mounted to the rails by welding;~~  
and

wherein the ladder includes a plurality of buttresses, each of the buttresses extending between one of the rails and a medial region of one of the rungs, each of the buttresses being substantially tubular.

14. (Cancelled)

15. (New) A ladder structure for enhancing corrosion resistance, comprising:

a ladder including a pair of rails and a plurality of rungs extending between and mounted on the rails;

wherein the rails and the rungs of the ladder comprise substantially tubular elements each having an interior;

wherein the interiors of each of the rungs are in fluid communication with the interior of at least one of the rails,

wherein each rung has opposite ends, the opposite ends being connected to a respective one of the rails, the ends of the rungs being located outside of the interiors of the rails.

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16. (New) The ladder structure of claim 15 wherein each of the rungs includes a perimeter wall having an edge at each end of the rung, the edges defining an opening at each end of the rung, the edge at each end of the rung being abutted against an exterior surface of the perimeter wall of one of the rails.

17. (New) The ladder structure of claim 16 wherein each of the rails has a perimeter wall, the perimeter wall of each of the rails having at least one hole formed therein, the opening of one of the rungs being in fluid communication with the hole of the rail.

18. (New) The ladder structure of claim 15 additionally comprising a support structure mounted on the ladder for enhancing rigidity of the ladder when the ladder is supported at an end in an extended condition.

19. (New) The ladder structure of claim 18 wherein the support structure includes at least one substantially tubular element with an interior in fluid communication with the interior of one of the rails.

20. (New) The ladder structure of claim 15 wherein each of the rails has a perimeter wall with a hole formed therein, and wherein each of the rungs has an opening located at an end of the rung;

wherein at least one of the rungs is connected to at least one of the rails in a manner such that the hole formed in the perimeter wall of the rail is in fluid communication with the opening in the end of the at least one rung;

wherein the interiors of substantially all of the rungs are in fluid communication with at least one of the rails;

a support structure mounted on the ladder for enhancing rigidity of the ladder when the ladder is supported at an end in an extended condition;

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wherein the support structure including at least one substantially tubular element with an interior in fluid communication with the interior of one of the rails;

wherein the support structure includes at least one truss assembly;

wherein the support structure includes at least one longitudinal member extending substantially parallel to one of the rails of the ladder, and a plurality of cross members extending between the longitudinal member and the said one rail of the ladder, wherein the longitudinal member and substantially all of the plurality of cross members comprise substantially tubular elements with interiors, wherein the interiors of substantially all of the cross members are in fluid communication with the interior of the longitudinal member;

wherein each of the cross members has a pair of opposite ends, a first one of the opposite ends being mounted on the longitudinal member and a second one of the opposite ends being mounted on the rail, at least one of the ends of the cross member being in fluid communication with the longitudinal member; and

wherein the ladder includes a plurality of buttresses, each of the buttresses extending between one of the rails and a medial region of one of the rungs, each of the buttresses being substantially tubular.

21. (New) The ladder structure of claim 1 wherein each of the rungs includes a perimeter wall having an edge at each end of the rung, the edges defining an opening at each end of the rung, the edge at each end of the rung being abutted against an exterior surface of the perimeter wall of one of the rails.